

Applying the Consolidated Framework for Implementation Research to Qualitatively Assess the Implementation of Bronchiolitis Care Management Interventions Across Alberta

Nathan Solbak¹, Erin Thompson², Ashleigh Jensen¹, Aaron Peterson¹, Daina Thomas³, Lindsay Long⁴, Brittany Sunderani⁵, Piushkumar Mandhane^{6,7}, Michelle Bailey⁴

- 1 - Physician Learning Program, Cumming School of Medicine, University of Calgary, Calgary, Canada
- 2 - Improving Health Outcomes Together, Quality & Healthcare Improvement, Alberta Health Services
- 3 - Pediatric Emergency Medicine, Department of Pediatrics, University of Alberta, Edmonton, Canada
- 4 - Pediatric Hospital Medicine, Department of Pediatrics, University of Calgary, Calgary, Canada
- 5 - Pediatric Emergency Medicine, Department of Pediatrics, University of Calgary, Calgary, Canada
- 6 - Maternal Newborn Child & Youth Strategic Clinical Network, Alberta Health Services
- 7 - Department of Pediatrics, University of Alberta, Edmonton, Canada

Themes: Individual and team improvement, Partnered system improvement activities, Audit and feedback, Implementation science, Quality improvement

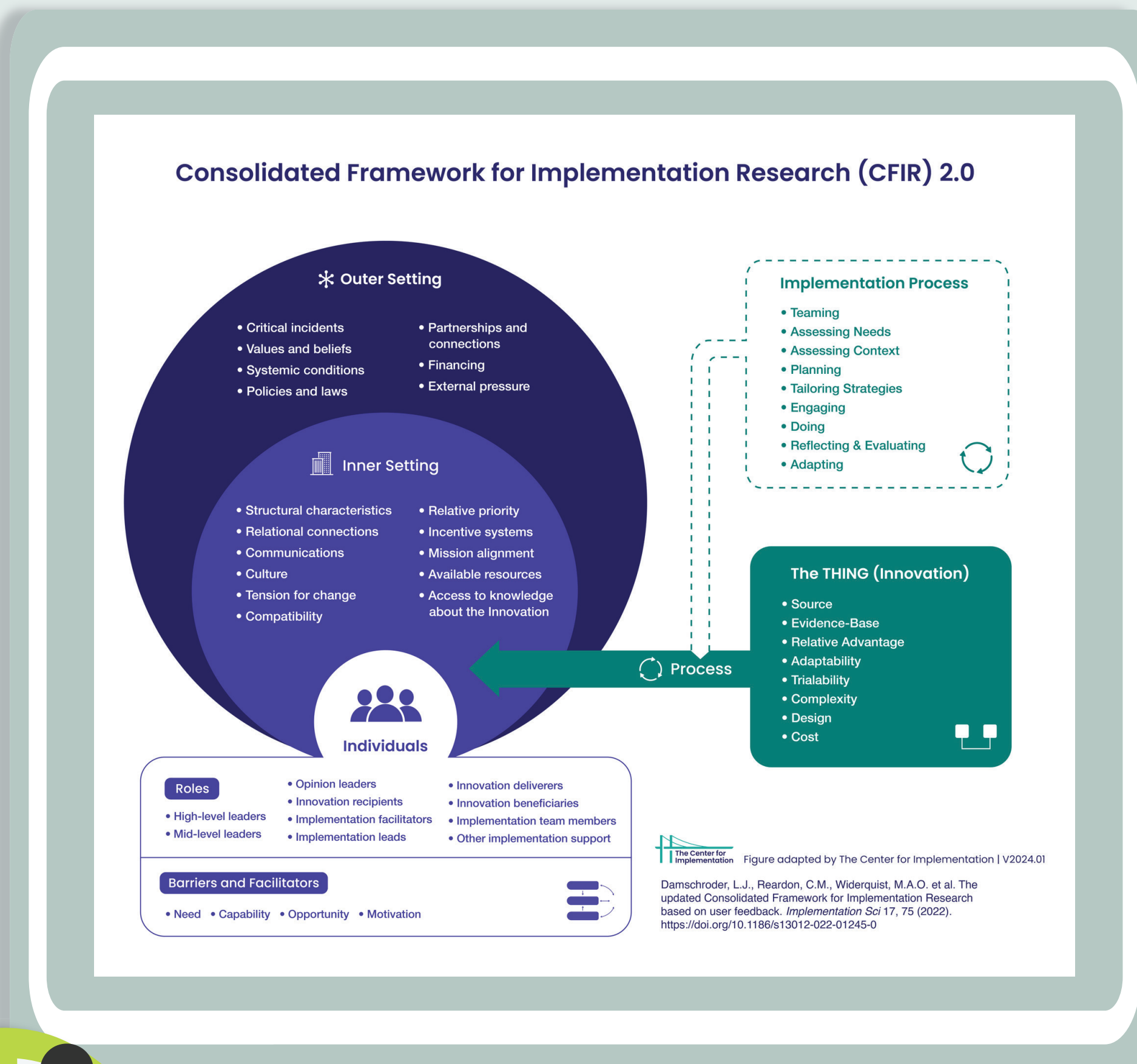


What you need to know

Acute viral bronchiolitis is among the most common illnesses seen in the emergency department and is a common cause of infant hospitalization in Canada.

What is this project about?

The Physician Learning Program (PLP) Calgary office, in collaboration with the two groups at Alberta Health Services, have implemented a provincial wide initiative working with healthcare teams to address low-value care associated with bronchiolitis management. To foster engagement, relationship building and contextual knowledge of sites, two individuals (physician and either a nurse or respiratory therapist) were invited to be site champions.



What did the team do?

- Site champions from 23 project sites were invited to participate in semi-structured interviews using the **Consolidated Framework for Implementation Research (CFIR)** to develop the interview guide
- A deductive content analysis was completed to identify which CFIR constructs are prevalent from site champions perspectives on barriers and facilitators to implementation
- A subset of interviews were coded by two PLP staff members to determine intra-correlation coefficients for the five CFIR constructs

Publication in progress

Conclusion

This study explored the enablers and challenges that clinical teams encounter when implementing projects on a provincial level. Site champions found the innovation design and the relative advantage of the project components to be facilitators to improvement. Practice improvement likely depends on understanding the Inner Context, such as how the innovation fits within each site's current and anticipated priorities, as well as external pressures that might be present.

Tailoring and adapting QI interventions is crucial to the success of provincial spread initiatives. Site champions often mentioned the need to adapt the QI intervention to fit the needs of their staff and patient population.

I think this is an example of an exceptionally well-done project with exceptionally great project management. And an example of when you actually have a project that's resourced, that has program coordinators and stuff, just how effective it can be. - Innovation, Design

We have had no bandwidth to do anything other than keep our head above water, honestly. I'm excited to do more next year moving forward, assuming things are a bit closer to normal. - Inner Setting, Relative Priority

Results

- Site champions from all participating facilities were invited to participate (n=67)
- 15 interviews were conducted, representing a 28% response rate, involving site champions from 12 of 23 sites
- Participants included 7 physicians, 6 nurses, 1 clinical nurse educator and 1 respiratory therapist
- 1/3 of the interviews were randomly selected for double coding by two PLP staff, resulting in a Kappa agreement of 84.7% 95%CI (81.5 to 88.0)
- Concerning the five CFIR domains, the responses coded to the Inner Setting were largest facilitator (30.8%) and barrier (38.4%) perceived for implementation (Figure 1a/1b)
- There were 45 distinct facilitators identified, with the top 10 facilitators shown in Figure 2
- There were 48 distinct barriers identified, with the top 10 barriers shown in Figure 3

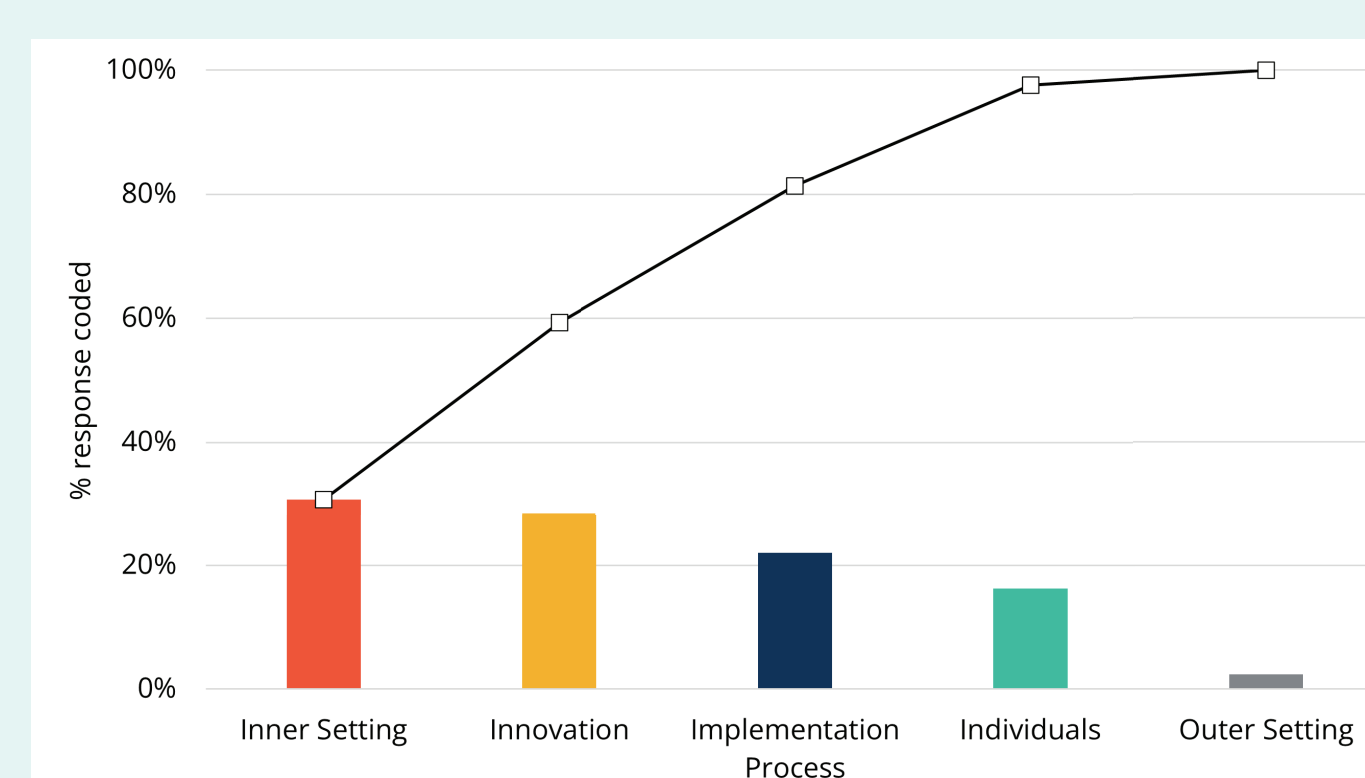


Figure 1a CFIR Domains - Facilitators

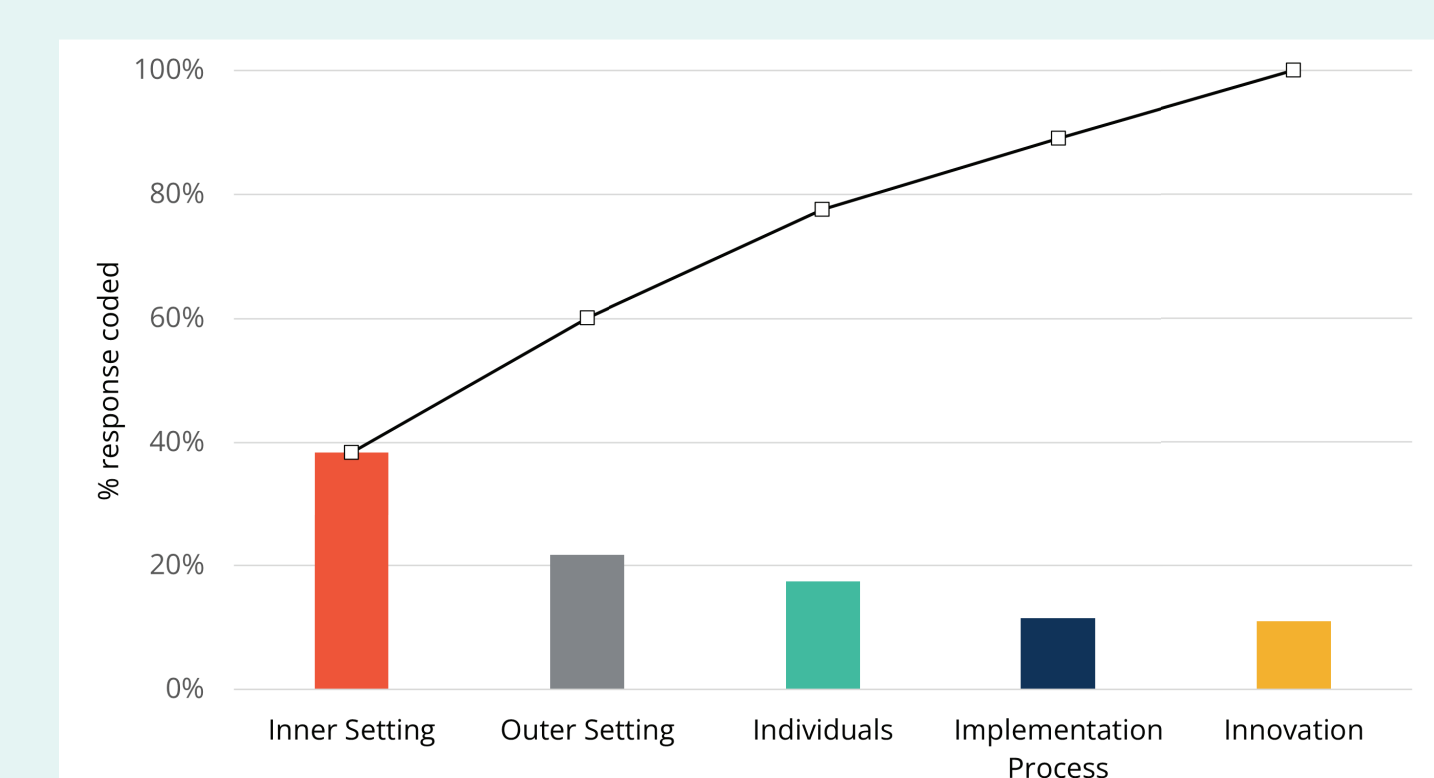


Figure 1b CFIR Domains - Barriers

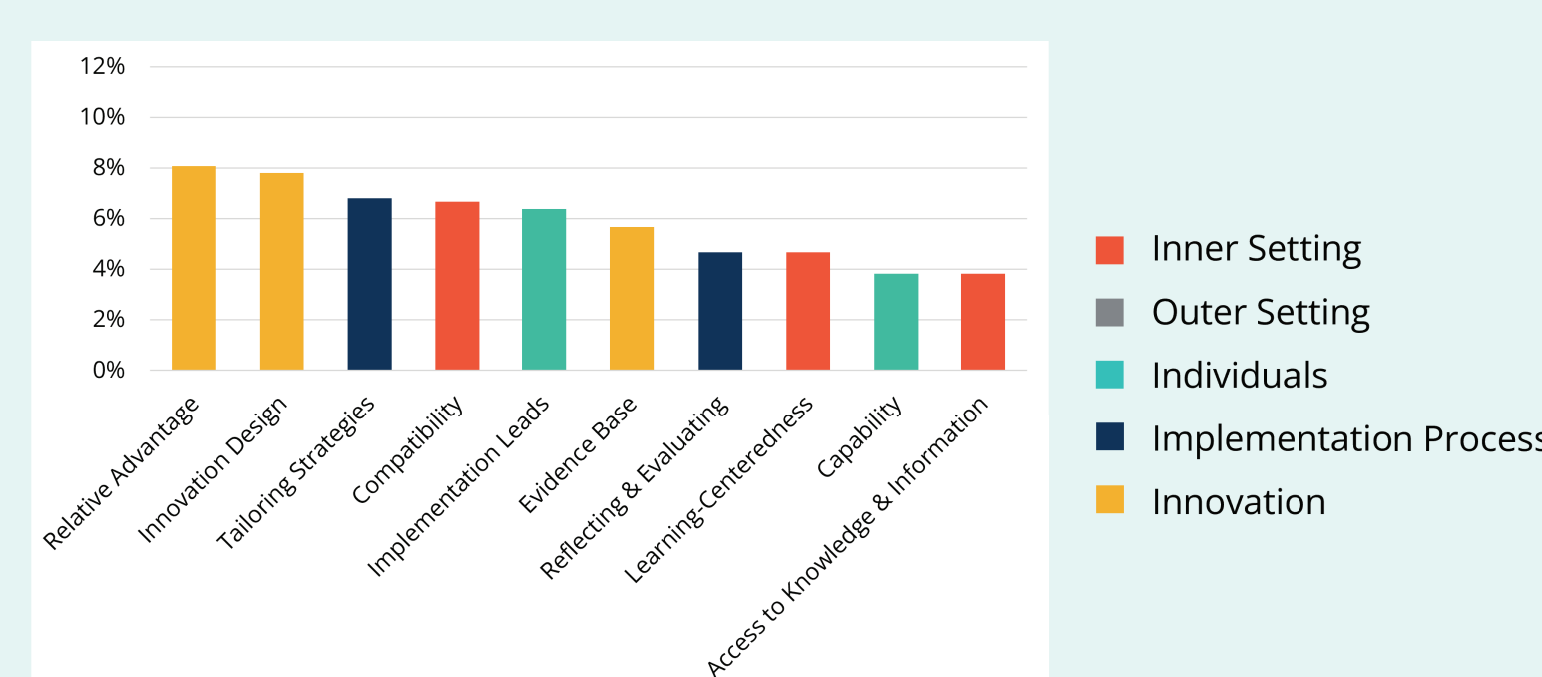


Figure 2 CFIR Domains - Facilitators

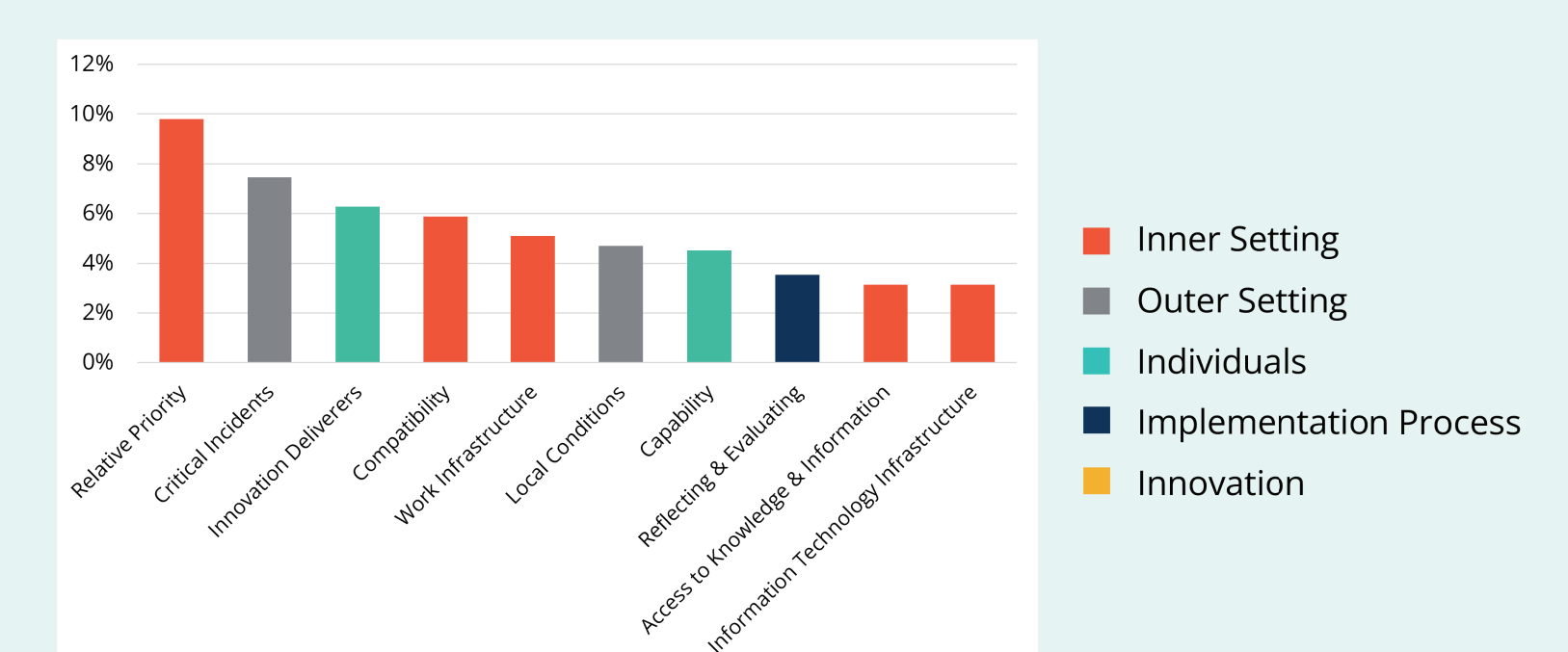


Figure 3 CFIR Domains - Barriers

Acknowledgments

The Physician Learning Program is supported by a financial contribution from the Government of Alberta.